

IN THE CLAIMS

Please add new claims 11-16 as shown in the complete list of claims that is presented below.

1. (previously presented) A LAN having a power feeding system, comprising:
 - a line concentrator, and
 - a plurality of terminals including at least one telephone terminal and at least one non-telephone terminal, said plurality of terminals being connected to said line concentrator via respective cables, each of said cables including therein a signal line for delivering data signals for mutual communication between said terminals, and a power feed line,

wherein said line concentrator comprises:

 - a power feed section for feeding power to said at least one telephone terminal via the corresponding power feed line;
 - a plurality of power feed control switching sections each for establishing or disabling connection between said power feed section and the corresponding power feed line;
 - a current monitor section for detecting whether a value of current flowing in each of said power feed lines when each of said power feed lines is connected to said power feed section is within a preset current value range which represents a state where the telephone terminal is connected to the cable including therein the corresponding power feed line; and
 - a control section for controlling said power feed control switching sections to connect the corresponding power feed lines to said power feed section in sequence, and for controlling each of said power feed control switching sections to stop feeding the power via the corresponding power feed line when said current monitor section detects that the value of the current flowing in the corresponding power feed line is outside said preset current value range, and to continue feeding the power via the corresponding power feed line when said current monitor section detects that the value of the current flowing in the corresponding power feed line is within said preset current value range.

2. (previously presented) The LAN according to claim 1, wherein the line concentrator further comprises a link detecting section for monitoring each of said signal lines in sequence to detect whether linkage with respect to the LAN, of the terminal connected to the corresponding signal line, is established, wherein said control section controls the corresponding power feed control switching section to continue feeding the power to the corresponding power feed line when said link detecting section detects that the linkage with respect to the LAN of the terminal connected to the corresponding signal line, is established, while the value of the current flowing in the corresponding power feed line is detected to be within said preset current value range.

3. (previously presented) The LAN according to claim 1, wherein the line concentrator further comprises a link detecting section for monitoring each of said signal lines in sequence to detect whether linkage with respect to the LAN, of the terminal connected to the corresponding signal line, is established, wherein said control section controls the corresponding power feed control switching section to continue to stop feeding the power to the corresponding power feed line when said link detecting section detects that the linkage with respect to the LAN of the terminal connected to the corresponding signal line, is established, while the corresponding power feed line is disconnected from said power feed section by the corresponding power feed control switching section.

Claims 4-6 (canceled).

7. (previously presented) A LAN having a power feeding system, comprising:
a line concentrator, and
a plurality of terminals including at least one terminal requiring power and at least one terminal not-requiring power, said plurality of terminals being connected to said line concentrator via respective cables, each of said cables including therein a signal line for delivering data signals for mutual communication between said terminals, and a power feed line,

wherein said line concentrator comprises:

a power feed section for feeding the power to the at least one terminal requiring power, via the corresponding power feed line;

a plurality of power feed control switching sections each for establishing or disabling connection between the power feed section and the corresponding power feed line;

a current monitor section for detecting whether a value of current flowing in each of the power feed lines when each of the power feed lines is connected to the power feed section is within a preset current value range that represents a state where the terminal requiring power is connected to the cable including therein the corresponding power feed line; and

a control section for controlling the power feed control switching sections to connect the corresponding power feed lines to the power feed section in sequence, and for controlling each of the power feed control switching sections to stop feeding the power via the corresponding power feed line when the current monitor section detects that the value of the current flowing in the corresponding power feed line is outside the preset current value range, and to continue feeding the power via the corresponding power feed line when the current monitor section detects that the value of the current flowing in the corresponding power feed line is within the preset current value range.

8. (previously presented) The LAN according to claim 7, wherein the line concentrator further comprises a link detecting section for monitoring each of the signal lines in sequence to detect whether a linkage relative to the LAN, of the terminal connected to the corresponding signal line, is established, wherein the control section controls the corresponding power feed control switching section to continue feeding the power to the corresponding power feed line when the link detecting section detects that the linkage relative to the LAN of the terminal connected to the corresponding signal line, is established, while the value of the current flowing in the corresponding power feed line is detected to be within the preset current value range.

9. (previously presented) The LAN according to claim 7, wherein the line concentrator further comprises a link detecting section for monitoring each of the signal lines in sequence to detect whether a linkage relative to the LAN, of the terminal connected to the corresponding signal line, is established, wherein the control section controls the corresponding power feed control switching section to continue to stop feeding the power to the corresponding power feed line when the link detecting section detects that the linkage relative to the LAN of the terminal connected to the corresponding signal line, is established, while the corresponding power feed line is disconnected from the power feed section by the corresponding power feed control switching section.
10. (previously presented) A LAN having a power feeding system, comprising:
a line concentrator, and
a plurality of terminals including at least one terminal requiring power and at least one terminal not-requiring power, said plurality of terminals being connected to said line concentrator via respective cables, each of said cables including therein a signal line for delivering data signals for mutual communication between said terminals, and a power feed line,
wherein said line concentrator includes a terminal detection section that feeds power to each of the plurality of terminals in sequence through their corresponding power feed lines; detects whether a value of current flowing in each of the corresponding power feed lines when each of the terminals is fed power is within a preset current value range that represents a state where the terminal requiring power is connected to the cable including therein the corresponding power feed line; if the value of current is within the preset current value range, judges the corresponding terminal to be the terminal needing power and continues feeding the power to the corresponding terminal; and if the value of current is not within the preset current value range, judges the corresponding terminal to be the terminal not needing power and discontinues feeding the power to the corresponding terminal.

11. (new) The LAN according to claim 1, wherein said preset current value range lies between a lower current limit and an upper current limit.
12. (new) The LAN according to claim 11, wherein both current limits are non-zero current limits.
13. (new) The LAN according to claim 7, wherein said preset current value range lies between a lower current limit and an upper current limit.
14. (new) The LAN according to claim 13, wherein both current limits are non-zero current limits.
15. (new) The LAN according to claim 10, wherein said preset current value range lies between a lower current limit and an upper current limit.
16. (new) The LAN according to claim 15, wherein both current limits are non-zero current limits.